

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/00700

**A. CLASSIFICATION OF SUBJECT MATTER**Int. Cl. <sup>7</sup>: G01R 29/10

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPAT, USPTO: antenna, aerial, transmitter, far field, near field, model and similar terms

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3879733 A (HANSEN et al) 22 April 1975 Whole document	1-34
X	CA 2033375 A (HAZELTINE CORPORATION) 3 April 1992 Whole document	1-34
X	US 5119105 A (NGAI et al) 2 June 1992 Whole document	1-34

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search  
31 July 2003

Date of mailing of the international search report - 5 AUG 2003

Name and mailing address of the ISA/AU

AUSTRALIAN PATENT OFFICE  
PO BOX 200, WODEN ACT 2606, AUSTRALIA  
E-mail address: pct@ipaustalia.gov.au  
Facsimile No. (02) 6285 3929

Authorized officer

DEREK BARNES

Telephone No : (02) 6283 2198

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**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 93/11581 A1 (ALLIED-SIGNAL, INC.) 10 June 1993 Whole document	1-34
X	US 5394157 A (GARNESKI) 28 February 1995 Whole document	1-34
X	US 5477229 A (CAILLE et al) 19 December 1995 Whole document	1-34

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**Box I** Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :

because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos :

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos :

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box II** Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims 1-22 are directed to a method of determining near field radiation characteristics of a radiating device
2. Claims 23-27 are directed to a method of estimating radiation power density level
3. Claims 28-34 are directed to a method of calculating power density level at a point in space

as reasoned on the extra sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims

2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

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**Supplemental Box**

(To be used when the space in any of Boxes I to VIII is not sufficient)

**Continuation of Box No: II**

The different inventions are:

1. Claims 1-22 directed to a method of determining near field radiation characteristics of a radiating device from a model which approximates determined far field characteristics of the device.
2. Claims 23-27 directed to a method of estimating radiation power density level by summing the contributions of many point sources representing the radiating device.
3. Claims 28-34 directed to a method of calculating power density level at a point in space from the far field radiation characteristics of a radiating device, the boundary between the far and near field radiation and the displacement of a point in space relative to the closest point on the radiating device.

### Information on patent family members

**PCT/AU03/00700**

### Patent Document Cited in Search Report

END OF ANNEX

Form PCT/ISA/210 (citation family annex) (July 1998)